Claims

1. An extender for an electrical data bus including a power line and signal lines, comprising first and second electrical connectors for connection to respective electrical connectors attached to respective electrical data buses, each of said first and second electrical connectors comprising a data interface circuit for communication with a respective said electrical bus, an optical transmitter and optical receiver electrically connected to said data interface circuit, driver circuits for said optical transmitter and optical receivers, said driver circuits obtaining power from the power line on the local electrical data bus, and a optic fiber connected between said optical transmitters and receivers at respective first and second electrical connectors to transfer data optically between said first and second electrical connectors.

2. An extender as claimed in claim 1, wherein said data interface circuit, said driver circuit and said optical transmitter and receiver at each end of said optical fiber are integrated into a respective connector housing.

3. An extender as claimed in claim 2, wherein said housing is made of plastic.

4. An extender as claimed in claim 3, wherein said housing makes a snap fit with the electrical connector.

5. An extender as claimed in claim 4, wherein said fiber is large core plastic fiber.

6. An extender as claimed in claim 1, wherein said electrical bus is a Universal Serial Bus.

7. A method of extending the range of an electrical data bus including a power line and signal lines, comprising connecting first and second electrical connectors to respective electrical connectors attached to respective electrical data buses, each of said first and second electrical connectors comprising a data interface circuit communicating with a respective said electrical bus, an optical transmitter and optical receiver electrically connected to said data interface circuit, driver circuits for said optical transmitter and optical receivers; deriving power for said driver circuits power from the power line on the local electrical data bus; and transferring data between said optical transmitter and receivers at said respective first and second connectors over an optic fiber.

8. A method as claimed in claim 7, wherein said data interface circuit, said driver circuit and said optical transmitter and receiver at each end of said optical fiber are integrated into a respective connector housing, and said connected housing is snapped onto the respective electrical connector attached to the local bus.

9. A method as claimed in claim 7, wherein said electrical bus is a Universal Serial Bus.

10. An electrical data bus including a power line, comprising a first electrical connector for connection to an electrical connector attached to an electrical data bus and a second optical connector for connection to an optic fiber, said first electrical connector comprising a data interface circuit for communication with a respective said electrical bus, an optical transmitter and optical receiver electrically connected to said data interface circuit, driver circuits for said optical transmitter and optical receivers, said driver circuits obtaining power from the power line on the local electrical data bus, and a optic fiber connected between said optical transmitters and receivers and said second optical connector.

11. An extender as claimed in claim 10, wherein said data interface circuit, said driver circuit and said optical transmitter and receiver at each end of said optical fiber are integrated into a respective connector housing.

12. An extender as claimed in claim 11, wherein said housing is made of plastic.